* **Source & Title**: The source of the information is a systematic literature review on the application of artificial intelligence in supply chain management (SCM).
* **Problem**: The problem addressed in the review is the need to understand the state-of-the-art of artificial intelligence (AI) in SCM and to identify the potential AI techniques that can be employed in SCM research. Additionally, the review aims to analyze the subfields and tasks in SCM that have already been improved using AI and to identify the subfields and tasks that are likely to be improved by AI in the future.
* **Purpose**: The purpose of the review is to provide a comprehensive perspective on the existing literature on the application of AI in SCM. It aims to analyze and discuss the state-of-the-art of AI in SCM, identify potential AI techniques for future research, and analyze the existing literature to provide a foundation for future studies in the field.
* **Method**: The review follows a systematic literature review approach, including a pilot search to gain a deeper understanding of the current literature, construct the criteria for literature selection, and derive the research question. The review employed a five-step process, as depicted in Fig. 1, and applied specific inclusion and exclusion criteria to select relevant articles for analysis and synthesis.
* **Conclusion**: The review concludes by discussing the limitations of the study and its managerial and theoretical implications. It contributes to theory by analyzing and discussing the state-of-the-art of AI in SCM, covering the most prevalent AI techniques applied in SCM studies, and discussing potential AI techniques that can be employed in future SCM research. The review also addresses the subfields and tasks in SCM that have already been improved using AI and provides insight for future studies in the field.
* **Future Work**: The review identifies existing gaps and future research opportunities in the application of AI in SCM, providing a structured guideline to prevent repetition and bias in conducting AI-SCM studies. It paves the way for future researchers and acts as a structured guideline for conducting AI-SCM studies.
* Reference: <https://www.sciencedirect.com/science/article/pii/S014829632030583X?ref=pdf_download&fr=RR-2&rr=8314c2d4bd063f81>

### **Source & Title**

The source of the information is a paper titled "Management in der Produktion" edited by Bauernhansl T. The specific section of the paper is authored by Mario Angos Mediavilla et al. and is published in Procedia CIRP with the title "Demand Forecasting; Supply Chain Management; Artificial Intelligence; Machine Learning; Deep Learning; Review; Analysis"

### **Problem**

The problem addressed in the paper is the need for effective demand forecasting in supply chain management, particularly in the manufacturing domain. The authors aim to identify and analyze the state-of-the-art AI methods for demand forecasting to address this issue.

### **Purpose**

The purpose of the paper is to conduct a structured literature review to identify and analyze existing AI methods for demand forecasting, specifically in the area of supply chain management with a focus on manufacturing.

### **Method**

The authors conducted a structured literature review using databases such as Web of Science, IEEE Explore, and Springer Publishing. They used a specific search sequence in combination with Boolean operators to identify relevant publications. The review focused on publications from the last five years (2017 - 2021) and evaluated 92 publications that met the initial requirements

### **Conclusion**

The analysis revealed a tendency towards short- to medium-term forecasts, with only a single publication forecasting long-term demands. The most commonly used metrics for evaluating AI methods were relative mean square error (RMSE), mean absolute percent error (MAPE), mean absolute error (MAE), and mean square error (MSE). Python was the most commonly used software for implementation, followed by R and MATLAB.

### **Future Work**

The paper suggests that hybrid AI methods could be a good candidate for dealing with the challenges of demand forecasting, especially when dealing with multiple variables and a high volume of data. Additionally, the authors propose a classification of AI methods based on their data characteristics to support manufacturing companies in selecting appropriate AI methods for forecasting customer demand.

**Reference**

<https://www.sciencedirect.com/science/article/pii/S2212827122004036>